

Barn personnel experience higher-than-average rates of respiratory symptoms

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The estimated 4.6 million Americans involved in the equine industry may be at risk of developing respiratory symptoms due to poor air quality in horse barns, according to a questionnaire study undertaken earlier this year by investigators at Tufts University's Cummings School of Veterinary Medicine.

The study—which polled more than 80 New England horse barn workers—found that 50 percent of individuals working in barns complained of coughing, wheezing, or other ailments in the last year, compared to just 15 percent in the control group of 74 people. Moreover, increased exposure to barns yielded higher rates of self-reported respiratory symptoms, the study reports. The study was published in the journal *Occupational Medicine* and funded by the National Institutes of [Health](#).

"It has long been known that lower respiratory illness is common in horses, and this is typically attributed to the amount of dust in barns," said Melissa R. Mazan, DVM, associate professor of clinical sciences at the Cummings School and the study's lead author. "Our hope was to see whether this poor [air quality](#) affects horse owners, and it appears that it might."

For the study, Mazan and her colleagues at the Cummings School—including Jessica Svatek, Louise Maranda, and Andrew M. Hoffman—collaborated with researchers from the Harvard School of Public Health, the University of Connecticut, and the National Health

and Environmental Effects Research Laboratory at the Environmental Protection Agency's Research Triangle Park.

Although further study is necessary to determine the causes of respiratory distress, Dr. Mazan says, the results are striking—and may be similar among pig, dairy and chicken farmers, who work in environments similarly high in organic dust. A 2001 study of European animal farmers found similar results.

Investigation of exposure to the dust, lung function and horse dander allergies in the barn-exposed group will be necessary to determine how best to protect the health of this group, Dr. Mazan says.

Source: Tufts University

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